Vertebrate Pest Control Without Poisons

Thomas Wittman

www.gopherslimited.com
Why not use poisons?

• Many poisons kill non target pests
• Poisons usually do not solve the problem
• Pollute ground water and wash into our lakes, streams and ocean
• Poisons can cause accidents to children and pets
• They can mask the root of the problem
Animals Tested Positive For Rodenticide

- 79 percent of endangered San Joaquin kit foxes turned up positive.
- Seventy percent of owls sampled in western Canada had rat poison in their livers.
- In New York, half of 265 birds of prey tested were positive for poison.
- In California, the victims include bobcats, barn owls, red-tailed hawks, coyotes, kit foxes, kestrels and scores of other predators and scavengers.

http://www.sacbee.com/2011/04/17/3558267/potent-new-rat-poisons-killing.html#ixzz1VEqSkle1
Pest Animals we will discuss today

- Gophers
- Moles
- Voles
- Rats and Mice
- Ground Squirrels
- Raccoons, opossum and Skunks
- Deer
- Javalina or wild pigs
Rodent Control in Leafy Green Vegetable Production

• Read Coop Extension’s Crop Notes May, 2008 “FOOD SAFETY AND SALINAS VALLEY CROPS: RODENT CONTROL IN LEAFY GREEN VEGETABLE PRODUCTION

Terry Salmon, Richard Smith and Steve Koike
County Director and Extension Vertebrate Specialist, San Diego County and Farm Advisors, Monterey County
Farm Advisors Findings

“In general, using rodenticides indiscriminately and extensively is ill advised due to the risk for developing resistance in the rodent population.

Other measures for controlling rodents include trapping. Exclusion fences may be effective for mice, but are not effective for ground squirrels.”
“To our knowledge, voles, mice, ground squirrels, and other rodents in coastal California agricultural fields have not been found to harbor pathogenic *E. coli*. Based on the studies mentioned above, it appears unlikely that these rodents will be found to be a common or important source of O157:H7 and other pathogenic strains.”
Gopher and Mole and Vole
General Biology of Gophers

- *Thomomys bottae* is most common in our area (CA)
- Named “Pocket gopher” because of cheek pockets
- Front teeth protrude through lip to aid digging
Meet a Pocket Gopher

WWW.GOPHERSLIMITED.COM
To View online go to youtube.com/gopherslimited
Gopher (Thomomys bottae)

Broad Footed Mole
A large thomomys bottae gopher

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Range of Pocket Gophers

Note: The T. bottae is the smallest of the gophers
Range of Moles

Moles live in North America, Europe, and Asia
There are seven species in North America

- Broad-footed Mole
- Coastal Mole
- Townsend’s Mole
- American Shrew-mole
- Eastern Mole
- Hairy-tailed Mole
- Star-nosed Mole

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Mole Range in US

Note that moles are not present in the dry areas of the US

Best book on moles
Gopher and Mole Skulls

Made for chopping and grinding

Made for capturing and tearing flesh

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Gopher Life Cycle and Breeding

- Lives three to five years
- Does not hibernate and can be active any time
- Can have three to five litters per year of two to ten young
- Female is pregnant for 18 days, young are weaned in 5 to 8 weeks
- Mother drives young off and dispersal begins, usually 3 to 400 feet from old burrow
- Nocturnal grazers and wanderers
Gopher Lifestyles

- Solitary with own burrow containing nests, food caches, dumps for feces and water sump holes to avoid flooding
- Territorial by nature and will fight to the death if caged together, gophers will share burrows during mating season
- Some gopher burrows are common and used by many gophers
- Re-occupancy of burrows is rapid – within minutes or hours
- There can be from 1 to 200 gophers per acre but usually range from 24 to 36
“Vera! Come quick! Some nature show has a hidden camera in the Ericksons’ burrow! ... We're going to see their entire courtship behavior!”
One gopher’s work over two week period
• Burrow system can be up to 3 hundred square yards but a small area is base

• There are surface mounds and feeding burrows

• Burrows are plugged during inactivity or nesting

• Nest portion is usually under a bush or tree to provide water
One gopher’s burrow system
More Gopher Nests
Gophers often invade from the surface at night
Minimizing Gopher and Mole Damage

Most Damage is from mounds smothering lawns

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Remove soil and find good lawn under
Identifying Gopher, Mole and Vole Burrows

- Gopher mounds are fan shaped and have plug
- Mole hills are rounder and do not have a plug
- Voles do not use a deep burrow system for feeding, but surface feed instead. Trails can be seen in grass on surface
- Gophers and voles eat vegetation
- Moles eat insects and worms and are generally believed beneficial
- Mole mounds can be tolerated if cleaned up before grass under soil dies
- Gophers, moles and voles use each other’s burrows

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Gopher Mounds and Mole Hills
Gopher Mounds
Gopher Mound
Mole Mound
Surface Mole Mounds
Mole Surface Trails
Gopher mounds and mole hills within two feet
Moles

- Diet consists of insects, grubs, worms, spiders, snails, & beetles.
- One litter per year.
- Short brown velvety fur.
- Active year round but antisocial.
- Prefers moist, sandy loam soils.
- Paddle like fore feet with prominent nails.
- Lacks external ears and eyes appear to be missing.
- Extensive burrow system
Broad Footed Mole
Gopher or Mole?
Vole Runs and Damage Control

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Habitat Modification to minimize voles

• Eliminate weeds, ground cover, and litter in and around crops
• Lawn and turf should be mowed regularly
• Mulch should be cleared 3 feet (1 m) or more from the bases of trees
• Soil tillage is effective in reducing vole damage as it removes cover
• Keep a barrier of clean land around crops – 15 feet if possible
Voles love rock walls
Vole damage on broccoli and chard

Nearby vole colony
Vole damage on ornamental kale next to agapanthus
Safe Vole Trapping

Mouse trap with large trigger with 4 penny nail to stabilize trap

Note: see video of this method at gopherslimited.com
Traps are covered with plastic channel to protect other animal and direct voles into traps
Note that mice also invade vole burrows
Plants Gophers Eat Last

- Amaryllis, daffodils, datura, crinum, sage, canna, most iris, geranium, salvia, snapdragons, marigolds, dianthus, nicotiana, vinca, scabiosa and gypsophila, sea stacice, dahlias, ageratum

- Best choices are aromatic, herbaceous, drought tolerant perennials
  - Lavender, sages, rosemary, thyme, oregano
Crop Strategies for Gopher Control

- Rotate to decrease populations by alternating crops that attract gophers
  - Crops with tubers and crowns are favorites
- Cover crops mixes with bell beans, fava beans and grains drive gophers to edges
- Most clovers attract gophers
- Many native weeds provide food for gophers
  - Malva, poppies, plantain, oxalis, crab grass
Sour Clover (*Melilotus indica*)

- contains Coumarin in its roots.
- Sour clover is nitrogen fixing
- re-seeds readily
- Attracts Beneficial Insects
- May be excellent for orchard covers
Gopher Barrier Setup

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Failed barrier due to non porous material used on slope. This barrier also failed due to gopher mounds at edges acting like ramps.
Can Gophers Climb?

To view this video online go to youtube.com/gopherslimited

WWW.GOPHERSLIMITED.COM
Raised Garden Beds
Gopher and ground squirrel barriers using silt netting

WWW.GOPHERSLIMITED.COM
Gopher Proof Fortress
Gopher Baskets and Wire

Stainless Steel
Lasts Forever
Costs More

Galvanized Wire
Limited Life
Environmental Pollution

Aviary wire eaten through
Gopher and Mole Wire Under Lawns and Gardens

Mesh should have 1-2 inches of soil from roots of sod

If wire is too shallow gophers pull grass down moles push dirt up

If too deep, gophers and moles live above the wire

Wire is lapped 6” and joined by landscape staples, hog rings or zip ties

WWW.GOPHERSLIMITED.COM
Wire Over Existing Lawn
Rodent Fence Constructed of 48” Stainless Steel Mesh
Vertical Barrier
Mole Damage

Gopher Damage

Damage in lawns with gopher wire to high

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Predators of the Pocket Gopher, Moles and Voles

“Our cat is a petite tabby, weighing only 9.5 pounds”

- Our cat's records for the past several years are:
  - 2001: 58 gophers, 4 mice
  - 2002: 65 gophers, 7 mice
  - 2003: 43 gophers, 6 mice, 2 moles
  - 2004: 28 gophers, 4 mice

"Will Work For Food...Barn Cats: Non-Toxic Pest Control"

WWW.GOPHERSLIMITED.COM

831-423-MEOW
A dog can do 10X the damage of a gopher and still not catch it.
Gopher Snake
“Well, I’ll be darned. Says here 70 percent of all accidents happen in the hole.”
RAPTOR PERCH MADE FROM 2X4'S
WITH TWO CROSS PIECES FOR OVERHEAD PROTECTION

3 FT.

5.5 IN.
BOLTS

3.5 IN.
BOLTS

3 IN.
SCREWS

2X4 CROSS PIECE

2X2 SUPPORTS

12 FT. 2X4

16 FT. 4X4
Great Blue Heron and Egret
Barn Owl Nest Box

- Barn owls range up to two miles from nestbox
- A family is usually two adults and two chicks
- One barn owl family can eat up to one thousand gophers per season

WWW.GOPHERSLIMITED.COM
The Hungry Owl Project

$85
www.hungryowl.org/boxes.html
Alex Godbe
Program Director
415-454-4587
WWW.GOPHERSLIMITED.COM
Flagpole Mount – easy to clean and maintain

Barn own box destined for predation by Great Horned Owl
Urban Myths and Subjective Solutions

• Juicy Fruit Gum
• Ex Lax, chocolate flavored
• Glass
• Rose cuttings
• Hair
• Cat Litter
Repellent Liquids

- Drenches of foul tasting and smelling liquids can be effective for single plants and trees (Ropel, castor oil)
- Coyote and cat urine can also work in specific areas for a short time (so will yours)
- Fish emulsion and other meat products can work around perennials
My Favorite Repellants
Sonic and Other Noisemakers

- May be effective in small area for short time
- Can be homemade or purchased at craft fairs
- No scientific research yet exists

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Flooding, Gassing and Blasting

- Flooding can be effective but often gopher gets away
- Gassing using lawn mower, tractor and auto exhaust might be effective
- Sulfur bombs have been known to work in some cases
- Rodent Torch and Blaster popular in orchards but are loud, expensive and dangerous but can be very effective due to burrow destruction
Smoke bombs available in many hardware stores

Large smoke bombs available from Agricultural Commissioner. Blower can add effectiveness.
Light, cover with soil, come back next day to see if burrow is open or new digging present, if new activity repeat. Beware of fire danger.
MOLECAT
Kills Moles on Contact
$124.95
Rodex Gopher Torch

WWW.GOPHERSLIMITED.COM
Rodent Blaster Can Start a Fire!

WWW.GOPHERSLIMITED.COM
PERC units pressurize exhaust gas (carbon monoxide) and inject gas into gopher runs.

In University of California field trials, 65% of gophers and 75% of ground squirrels were consistently killed, Hurlburt maintains.
The Cheetah is $989.00
CO2 Burrow Fumigation

Gophers Limited $189
Juggling For Gophers
Gopher Traps: History

- First patented and commercially produced trap was the Woods Gopher trap, Patented in 1870 by Romanso Wood of Santa Cruz, California.
- By 1900 12 more traps were patented all from California and Zephyr Macabee developed and patented his trap that has survived unchanged to this day.
Basic Trapping Strategies

• Focus on one area at a time
  – Too many spread out traps leads to confusion and lost traps

• Observe natural barriers and work to or from them

• Minimize time spent at each site

• Trap at freshest sites

• Focus on inner gophers so you can eventually only have to work borders
More out of control
Find freshest run
Find fresh burrow
Right after rain – note texture and color
Burrow System

- Most tunnels are only 6-10 inches deep
- Pay special attention to nesting sites
Locating Run Entrance
Trapping Techniques General

Rules

- Set traps in early morning or late afternoon
- Be sure to trap all year as in winter breeding population is lowest
- Check traps often
- Wear gloves to protect yourself
- Trap in freshest burrow
- Stake or flag traps to find them
- Keep traps in ground, not in barn
Basic Farm Trapping Strategies

- Early morning - burrows open right after dawn
- Early evening
- Early in spring prior to first litters
- During fall just after planting cover crops
- After a weather event or irrigation
- After a field operation
- Tilling, rolling, harrowing, mowing
- During other operations in the field
- Morning crop count
  Moving irrigation pipe or repairing drip
- During harvest

- Best to keep traps in ground instead of barn so trapping becomes a continuous operation integrated into the general operation of a farm or ranch
Estimating Gopher Population Numbers

Populations can be from 0 to 200 gophers per acre and vary by season and food supply.

Best way to determine populations is to count fresh burrows after a field operation or a weather event.
5 Acre Soccer field – 156 gophers caught
31 gophers per acre
About 1 acre – fresh mounds indicate 5-8 gophers
About 1/2 acre – fresh burrow count 10-20  40+ gophers per acre
Local Gopher Trap Collection

WWW.GOPHERSLIMITED.COM
Cinch Live
Gopher
and Mole
Trap

WWW.GOPHERSLIMITED.COM
Find Plug

Open plug and expose tunnel

Set in trap so gopher goes to end to close burrow

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Live Snaring Gophers

• Wait for Gopher to become active
• Set up snare
• Wait Patiently (1-10 minutes)
• Pull snare quickly and go up to hole
• Drop gopher in bucket or cage
• Relocate at least 2 Miles away
Lethal Trapping Techniques

• Main Burrow Trapping
  – Dig to main burrow
  – Set two or more traps and stake them
  – Bury or cover excavation
  – Monitor by digging up excavation

• Surface Trapping
  – Open burrow entrance
  – Set trap
  – Monitor from above ground
Macabee and Box Types

- If using Macabee or box type traps, excavate at mound or probe for burrow, trap both ends of exposed burrow
- Check daily by pulling traps out of burrows
Macabee and Box Style Traps
Hiding Traps (Macabee and Victor)

• Dig to main burrow
• Set double trap
• Use brightly colored tape or wire to locate
• Use bright chalk marking paint
Probe for Main Tunnel
Setting Up Macabee and Box Traps
1. Dig out lateral runway to point "A" and clear away soil so trap can be placed as shown below.

2. Set trap in lateral if possible.

3. If unable to set trap in lateral, set two traps in main runway.

4. After placing one or two traps as shown, cover completely with soil but not more than 1 inch deep on top.

1. Locate main runway with shovel or probe.

2. Cut through runway digging away soil sufficiently to allow placing of traps in open ends of runway.

3. Use large spoon to enlarge hole enough to receive traps. Place traps well back in runway and press down firmly.

4. After placing trap as shown, close open ends of runway with clod or clump of grass and cover with soil to shut out light.
Gophinator Trap by Trapline Products

Similar to Macabe
All Stainless steel
Very strong spring
Main burrow trap

Two Traps--$14.99
Gopher digging
Gophers always plug open burrows
Trapping Techniques: Cinch

- Advantages of a Cinch trap
  - Trap from surface – very little digging
  - Checking traps is easy
  - Removing gopher is easy
  - Easy to spot in field

Company Sales
676

WWW.GOPHERSLIMITED.COM
Cinch Trapping Strategy

- Trap on surface mounds and openings
- Watch for fresh digging
- Open mound carefully and pull out loose soil
- Insert trap being careful not to push in more loose soil
- Be sure to leave burrow open
Cinch Trapping Video

Surface Trapping Gophers with the Cinch Trap
gopherslimit.com
Proper Cinch Setting Technique

- Tunnel exit
- Feeding hole
- Right:
  - Main burrow
- Wrong:
  - tunnel exit
  - feeding hole

WWW.GOPHERSLIMITED.COM
The Pop
Make New Burrow
Trap whole Burrow
Hair In Trap is Good
Integrated Approach to Controlling Burrowing Rodents

Roger A. Baldwin
UCCE Wildlife Specialist, Department of Wildlife, Fish, and Conservation Biology, UC-Davis
EVALUATION OF THE EFFICIENCY OF THREE TYPES OF TRAPS FOR CAPTURING POCKET GOPHERS

MICHAEL J. PIPAS, GEORGE H. MATSCHKE, and GERALDINE R. MCCANN, USDA National Wildlife Research Center, 4101 LaPorte Avenue, Fort Collins, Colorado 80521-2154.

<table>
<thead>
<tr>
<th>Trap Type</th>
<th>Number Trap Stations</th>
<th>Capture Efficiency (%)&lt;sup&gt;1,2&lt;/sup&gt;</th>
<th>Time Efficiency&lt;sup&gt;1,3&lt;/sup&gt;</th>
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<td>121</td>
<td>18.3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.032&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>Cinch</td>
<td>115</td>
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<td>Macabee</td>
<td>124</td>
<td>27.7&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.036&lt;sup&gt;a&lt;/sup&gt;</td>
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Trapping—Options

Pocket gophers

- Gophinator trap was more effective.
- Covered sets yielded slightly higher capture rates in spring-summer, but not autumn.
- Efficacy was offset by setting time.
Trapping—Attractants

Pocket gophers

- We tested 4 attractants using uncovered trap-sets.
- We did not observe a difference in the number of captures across attractants ($P > 0.123$).

![Comparison of captured pocket gophers using different attractants](image)
Trapping—Learning Curve

Capture Efficiency

Capture Rate
Can you Eat Gophers?

• Gopher Pie
  - 1 Gopher, skinned and cleaned
  1/4 cup onion
  1/4 cup green pepper
  1/2 tbsp minced parsley
  1 tbsp. salt
  1/8 tsp. pepper
  4 1/2 tbsp. flour
  3 cups broth
Mole Trapping and Exclusion

- Moles eat worms, grubs and insects, not plants
- Mole are hard to trap so careful trap placement is necessary
- Moles do not like to touch iron
- Moles Learn quickly if you miss them
- Be persistent
- Vary trapping methods
Mole Mounds

Arrows point to good trapping areas

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Cinch Mole Trap
Typical Mole Trapping Setup Using Cinch Traps
Victor Out of Site

“Speed Bump”
WWW.GOPHERSLIMITED.COM
Victor Out of Sight

[Diagram of a mole trap]

Choke should be 1/2 inch above the bottom of the mole tunnel.

[Image of mole trap packaging]
Victor Harpoon Type Best For Surface Mounds

WWW.GOPHERSLIMITED.COM
Nash Choker Loop Mole Trap

www.gopherslimited.com
Simple Mole Pit Trap
Cinch Trapping Moles From Surface

To see this film online go to www.youtube.com/gopherslimited
Tree Squirrels

* Trim limbs and trees to 6 to 8 feet prevent squirrels from jumping onto roofs.
* Avoid attracting squirrels with bird feeders and other outside food
  - Block the “squirrel highway.” with sticky barriers
  - Remove or relocate problem squirrels
Tree Squirrels
Custom Mole Wacker

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California Ground Squirrels
Basic California Ground Squirrel Biology

• Burrows are 4 inches in diameter, 5 to 30 or more feet in length and go to a depth of 2 to 4 feet.

• Breed once a year, 7-8 per litter from December to April

• Eat grasses and plants in Spring, seeds and nuts in fall
Ground Squirrel Control

- Trapping with live and kill traps
  - Conibear No. 110, box traps, Tomahawk, Black Fox or Havaheart

- Fumigating with gas cartridges
  - Purchase from Ag Commissioner or hardware store
  - Best done in winter or spring or after irrigation

- Toxic Baits
  - Rodetrol may work if bait stations are on paths and it is fall

- Habit Modification
  - Eliminate brush piles and debris
  - Destroy burrows constantly by disk ing or other means

- Rodent Torch blasting

- Shooting

WWW.GOPHERSLIMITED.COM
Black Fox Repeating Squirrel Trap

8 Squirrels

13 Squirrels

www.thetrapmaker.com $45.00

WWW.GOPHERSLIMITED.COM
Ground Squirrel Trapping Using a Repeating Trap

- Pre bait area near burrow but not at burrow entrance
- Bait with grains during dry times, fruits and nuts during wet times
- In some climates Ground Squirrels do not hibernate or aestivate
- Bait until squirrels are congregating at bait pile
- Bait every day at same time
- Leave trap next to bait so squirrels become used to it
- When feeding frenzy is steady, open cage outer doors to expose one way doors
- Empty trap early in the day and dispatch animals
- Do not leave trap open over night

WWW.GOPHERSLIMITED.COM
Euthanasia Box
GROUND SQUIRREL
'D8 @ REPEATER

[Handwritten symbols and numbers]
Ground Squirrel Containment Barriers

- Can discourage dispersal or invasion because:
- Ground squirrels are visually oriented animals that have a strong need to keep their burrow entrances in sight at all times.
- Vinyl barriers
  - Root Guard, lawn edging strips or any wide slippery material
- Wood slatted privacy fencing (at least 3’ high) in conjunction with wire mesh and vinyl barriers
- Tall grasses used along with other barriers can lead to permanent solution
- Electric Fence set at 1 and three inches over plastic weed barrier
Rodenator at Esalen
Burrow Blocker

Amerigreen Technology Inc.
dba Burrow Blocker
P.O. Box 1540
Byron, CA 94514
Phone: (925) 634-9204
Fax: (925) 634-9595
info@burrowblocker.com
Common Ground Squirrel Traps
Home Made Squirrel Trap
Yellow Bellied Marmots

Size: 12”-24” long, weighing 6 ½ - 15 ½ lbs
Color: Long thick fur that is yellowish brown, brown, reddish black, or a mixture of grey and white
also known as the “Whistle Pig” or the “Rock Chuck.”

Very similar to Ground Squirrels and can be controlled in same way. As this animal is new to coastal California, be very aggressive about colony build up.

Building a fence is also an option, but it must be high off the ground so the marmot can’t climb it, and it must be deep enough so the marmot can dig under it.
Rabbits
Rats and Mice
• Wood Rats, Roof Rats, Norwegian Rats
Ways to Deal with Rats and Mice

• Exclusion is best
  – Wire or cover openings

• Remove food source if possible
  – Bird and chicken feeders
  – Compost and vermicompost piles

Poisoning rats can lead to smells in walls

Rats destroy 20% of world’s food supply every year
Rat Trapping - Lethal

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General Rat Trapping Rules

• Set traps in path of animal
• Leave traps unset for first couple of days
• If you use bait tie it to trap trigger
• Vary trapping methods
• Be careful not to trap non target animals
Typical Rat Entrance Under Eaves
Rat Zapper
Use Protective Trap Enclosures for Outdoors
Rat and Mouse Bucket traps

Just Google rat bucket trap and search images for hundreds of variations
Bucket Trap Roller
New Zealand Repeating Rat Trap

A24 Rat and Mouse Trap Kit with Counter
$199.99 (Free Shipping)

The Goodnature A24 Automatic Rat and Mouse trap is a revolution in pest control!

It combines superb design engineering principles and behavioral science with the highest manufacturing standards to deliver a trap that lasts for years and kills 24 times per CO2 canister.

Click Here for important delivery information.
Goodnature Trap
Rats, Mice Eating Auto Wiring

- Leave the hood up. ...
- Hide your food, dog food, cat food, etc
- Remove or seal off rat hiding places
- Block holes to the engine compartment
- Use electronic deterrent devices
- Make your engine and its entrances smell bad, at least to rats. (Critter Ridder)
Wiring protection
Does Your Car have soy based wiring?

• Many 2012-2016 Toyota models
• Many 2012-2016 Hondas
• Many more mostly in those years

https://www.howtopreventratsfromeatingcarwires.com/2017/02/10/does-your-car-have-soy-based-wiring/
Rat Trapping - Live
Exclusion

- Hardware cloth and screws
- Flashing with galvanized or aluminum flashing
- Stuffing holes with copper mesh or course steel wool

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Working With Larger Animals

• Determine if there is a way to deter or exclude animal
• Discourage animal by adding odors
• Use one way doors
• Trapping is last resort
  – Use proper trap for target animal
  – Be aware of spring litters
  – Be sure to check local laws
Larger Animal Problems

- Raccoons, Skunks and Opossums
  - May be deterred by sprays
  - Motion sensor sprinklers
  - Fencing

WWW.GOPHERSLIMITED.COM
SCARECROW Sprinkler

Deer, Cats, Rabbits, Raccoon, Dogs, Squirrels, Skunks, Garden Pests, Rats/ Mice, Moles, Ground Hogs, Geese, Heron, Cranes, Raccoons, possum, cougar, bear

$50-80

WWW.GOPHERSLIMITED.COM
Ultra sonic Repellers

$20-100

WWW.GOPHERSLIMITED.COM
Deer Shield

Digital recordings of alarmed, aggressive, hostile and territorial deer

Motion activated or timer activated on smaller unit

Each speaker protects up to 1.5 acres

$250

$545 with 1 speaker
$85 per additional speaker

WWW.deershield.com
Electric fence can keep animals in and out

PoultryNet™ 12/42/3 Kit - (42" x 164') $169
Hot Pepper Sprays

• Hot Pepper Repellent Recipe

• You need:

• 1. One chopped yellow onion
• 2. One chopped Jalapeno pepper
• 3. One tablespoon of Cayenne Pepper

Boil ingredients for 20 minutes in two quarts of water. Then let it cool and strain the mixture through cheesecloth. Lasts for three to five days.
Pepper Sprays That Stick
Smelly Formulas

Small Critter Powder (Fox Urine Powder)
100% Natural
$15.95

putrescent egg

WWW.GOPHERSLIMITED.COM
Havahart Critter Ridder

Oil of Black Pepper ..... 0.480%
Piperine (From Oleoresin of Black Pepper) ..... 0.185%
Capsaicin and Related Capsaicinoids (From Oleoresin of Capsicum)

OMRI Listed Organic

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Live Trapping Large Pest Animals

- Use Cage traps
- Take to Native Animal Rescue
- Be sure to get whole family
- Have a plan
- Remember that trapping is last resort
Live Traps
One Way Doors

MODEL E30

MODEL E40D

WWW.GOPHERSLIMITED.COM
Exclude and use one way doors
Common Skunk Damage and Access
Bucket Trap
DuraPoly Live Trap

- Easy to use
- Animal feels safe and contained
- Protects trapper from bites, diseases, and sprays
- Can be used as a euthanization chamber

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Using Durapoly Traps
Deer and Wild Pigs

• Wire Fence is best solution
  – Inexpensive net fence
  – Electric fence problems

Sprays and drenches are temporary and high maintenance solutions
Wild Pigs Garden Barrier

Surround your garden with fine plastic mesh. Lay it low on the ground so that it is 2 to 4 inches above the soil. Plants will grow through the mesh, but it works as a barrier. Pigs will not traverse an area where their feet may become entangled.

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Electric Fence For Wild Pigs
Who to Call if you have a wild pig

- Invite a licensed hunter(s) onto your property under DFG regulations to take the pig(s).
- Call Vector Control to come out and assess. If they trap an animal, they will dispose of it.
- Call your County Agricultural Commissioner
- Call the California Department of Fish and Game
- Call the local USDA Wildlife Services staff or County Trapper
Plastic Netting

Standard 7’7”  328 ft  $330
Heavy Duty 165’  $225

UCSC Arboretum 4272998

WWW.GOPHERSLIMITED.COM
High Tensile Wire Deer Fence
Resources and Questions

• A lot of information is on the web. Use keywords like “gopher trapping”, “pocket gopher”, “gopher traps”
• Talk to neighbors about joining you in this mission
• Enlist the aid of trappers or professional landscapers
Web Resources for Gopher, Mole and Vole Control

www.bugspray.com A very complete online catalog and information site with an index of pest problems and a narrative solution portion linked to products.

http://www.nwtrappers.com/catalog/traps/gophermole.asp Also known as Cumberland’s Northwest Trappers Supply is probably the most complete trap supply house in the US. Cinch, No-mole, Macabee, drenches and many other products at reasonable prices.

www.molepro.com This site is mainly concerned with moles and is packed with useful information about myths and natural history of moles. There are many tips on keeping them away and on trapping.

Common Sense Pest Control by Bill and Helga Olkowski and Shiela Daar
This book is available from almost any book seller and is an encyclopedia of useful non toxic information about pest control and has a great section on gophers and other burrowing animal pests.
WWW.GOPHERSLIMITED.COM

→ contact me

→ See this lecture online

→ Links to more information

→ Purchase traps, gopher wire, tools and video